Appendix 2: Enterprise Integration Platform

The Integration Platform or Services Layer is intended to provide:

- Increased organizational agility and time to market
- Integration capabilities within the DHS architecture framework
    - Engagement layer to program layer to data layer, etc.
- Integration capabilities external to the DHS architecture
    - Federal partners, other state agencies, business partners, etc.
- The technical environment where shared services are located and accessed, examples such as;
    - Content management
    - Rules Engine(s)
    - Security Services
    - Identity Management Services
    - Access Management Services
    - Interoperability Services
    - Data Services

Integration Technical Architecture

The concept of Enterprise Information Architecture (EIA) is central to the technologies and processes that will allow the connection of data, applications, and devices. The focus of this effort will be to assist with the development of an enterprise architecture using the acquired set of architecture tools.

The Integration/Services layer is designed to support a Services Oriented Architecture (SOA) to provide flexibility, scalability and the capability to introduce and retire services in a straight-forward manner. Using a Platform as a service (PaaS) model allows enhancement of the IT infrastructure where users can focus on creating and running applications as opposed to maintaining the underlying infrastructure and services.

Leveraging APIs and employing an Enterprise Service Bus (ESB) as a standardized integration platform allows messaging, web services, data transformation, and intelligent routing to reliably connect and coordinate the interaction of a significant number of heterogeneous applications and hybrid cloud solutions with transactional integrity. The use of an API tool allows the management of APIs for both internal and external services. The use of a container platform will extend the use of APIs by supporting the use of distributed integration, and highly scalable, reusable services. The ability to create an efficient setup for API management is central to this effort.

Support of a DevOps strategy emphasizes collaboration and communication between both software developers and other IT groups while automating the process of software delivery and infrastructure changes.

Support of an Enterprise Content Management (ECM) strategy to ensure ease of access, reduce paper overload, streamline business processes, and centralized content are achieved.

Support of an Identity and Access Management (IAM) strategy to ensure critical services are implemented to control and secure use of provided services. This effort will support SSO, security compliance, and foster collaboration across applications and services.

Through the use of the integration platform, the process of modernizing legacy applications will be addressed by providing short-term integration solutions that ensure long-term success.

DHS Architecture Tools: To Date

Engagement Layer:

Integration Layer:

Content Management:

Customer Identity Management

Access Management:

Overall Architecture View